Washington State Institute for Public Policy

Benefit-Cost Results

Tutoring: By peers

Benefit-cost estimates updated July 2015. Literature review updated July 2014.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our technical documentation.

Program Description: Generally, peer tutoring is an instructional strategy that uses students to provide academic assistance to struggling peers. Peer tutoring may use students from the same classrooms or pair older students with younger struggling students. Tutoring assistance can occur through one-on-one interactions or in small groups and in some instances students alternate between the role of tutor and tutee. The specific types of peer tutoring that have been evaluated and are included in this meta-analysis are (in no particular order): ClassWide Peer Tutoring, Peer-Assisted Learning Strategies, and Reciprocal Peer Tutoring. The evaluated tutoring programs in this analysis provide, on average, about 30 hours of peer tutoring time each year and about 6 hours of training time for teachers and students to learn program procedures.

Benefit-Cost Summary

Program benefits	
Participants	$8,308
Taxpayers	$3,905
Other (1)	$3,891
Other (2)	$114
Total	$16,218
Costs	($113)
Benefits minus cost	$16,106

Summary statistics	
Benefit to cost ratio	$144.09
Benefits minus costs	$16,106
Probability of a positive net present value	83 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our technical documentation.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Labor market earnings (test scores)	$8,351	$3,562	$4,139	$0	$16,052
Health care (educational attainment)	($43)	$343	($248)	$170	$221
Adjustment for deadweight cost of program	$0	$0	$0	($56)	($55)
Totals	$8,308	$3,905	$3,891	$114	$16,218

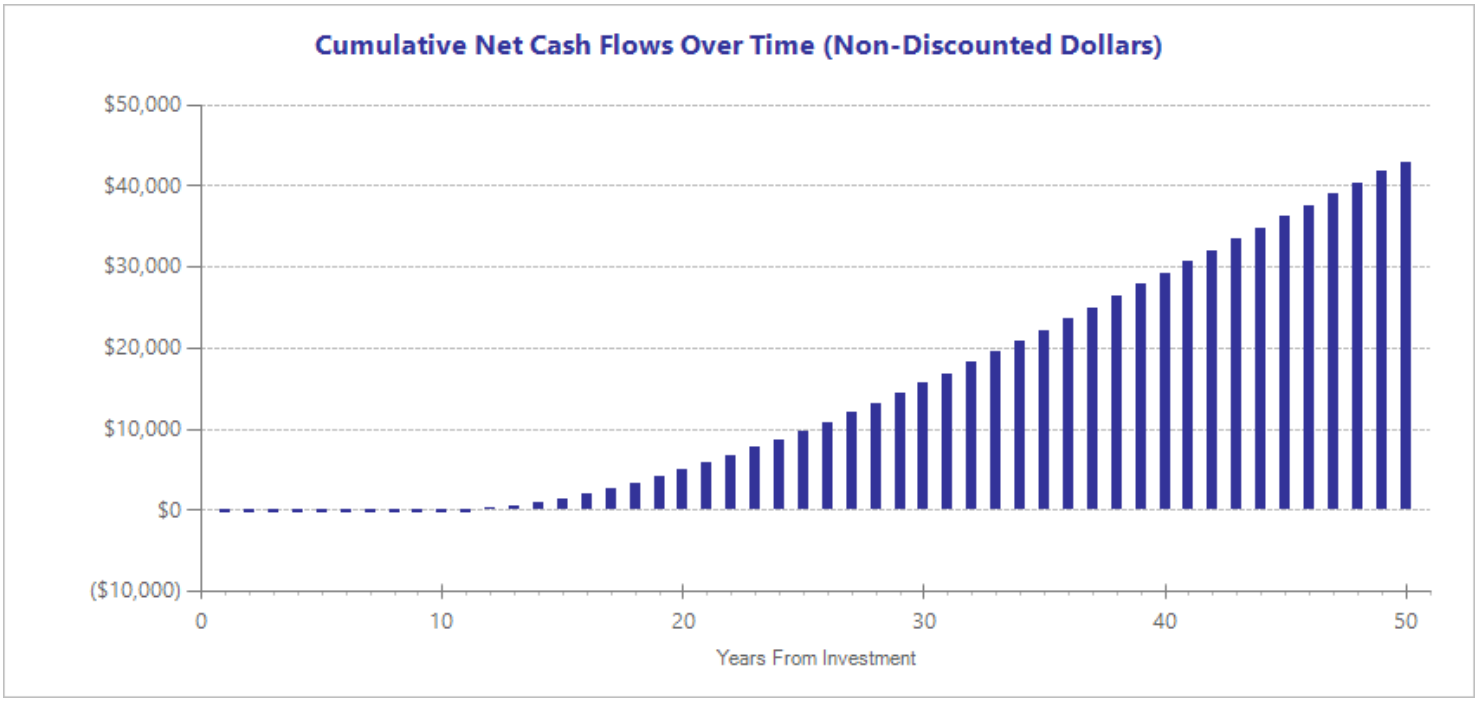
We created the two “other” categories to report results that do not fit neatly in the “participant” or “taxpayer” perspectives. In the “Other (1)” category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the “Other (2)” category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$111	1	2013	Present value of net program costs (in 2014 dollars)	($113)
Comparison costs	$0	1	2013	Uncertainty (+ or - %)	10 %

In the evaluations included in this meta-analysis, the average peer tutoring program provides 30 hours tutoring time and 6 hours of training time per class. To calculate a per-student annual cost, we use average Washington State compensation costs (including benefits) for a K-8 teacher as reported by the Office of the Superintendent of Public Instruction divided by the number of students per classroom in Washington's prototypical schools formula.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Primary	8	400	0.428	0.001	0.217	0.118	9	0.130	0.130	17

Citations Used in the Meta-Analysis

Dion, E., Roux, C., Landry, D., Fuchs, D., Wehby, J., & Dupere, V. (2011). Improving attention and preventing reading difficulties among low-income first-graders: A randomized study. *Prevention Science, 12*(1), 70-79.

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